AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application including any Article 19 or 34 Amendments:

LISTING OF CLAIMS:

1-15 (cancelled).

16. (new) A rotational moulding machine comprising

a carousel base which is horizontally rotatable on a floor about a central vertical axis,

at least three mould manipulators which are mounted on the carousel base to be centred at equal intervals on a circle which is concentric with the axis of rotation of the carousel base,

a vertically movable heating station housing, having an open underside, for enclosing a mould manipulator on the carousel base and means in the housing for heating the mould manipulator and the or each mould which it carries,

a vertically movable cooling station enclosure which includes at least a side wall for surrounding a mould manipulator on the carousel base and means on the enclosure wall for cooling the mould manipulator and the or each heated mould which it carries,

and means, independent from the carousel base, for simultaneously raising the heating station housing and the cooling station enclosure from the carousel base, and the mould manipulators which they enclose, in use, to an elevated position in which they are clear of the mould

manipulators to enable the mould manipulators to be moved by indexed rotation of the carousel base from the heating and cooling stations and then simultaneously lowering the heating station housing and the cooling station enclosure over manipulators on the carousel base which have replaced them.

17. (new) A rotational moulding machine as claimed in claim 16 wherein the underside of the carousel base includes a circular track which is fixed to it to be centred on its axis of rotation and the machine includes a set of wheel arrangements which are mounted at suitably spaced intervals on the floor in a circle beneath the carousel base with their wheels engaged with the carousel base track and means for index rotating the carousel base and the mould manipulators which it carries between static mould heating, cooling and mould loading and stripping station positions over the carousel base.

18. (new) A rotational moulding machine as claimed in claim 16 wherein the heating station housing includes a wall portion for surrounding a mould manipulator on the carousel base and a roof portion with the two housing portions defining between them a heating chamber which, when the housing is lowered onto the carousel base, totally encloses the mould manipulator.

19. (new) A rotational moulding machine as claimed in claim 18 wherein the heating station housing roof portion is domed to minimise heating space in the chamber.

20. (new) A rotational moulding machine as claimed in claim 19 wherein the heating means in the heating station housing is at least one gas burner which is fixed to the housing wall.

21. (new) A rotational moulding machine as claimed in claim 16 wherein the cooling station enclosure cooling means is at least one air cooling fan.

22. (new) A rotational moulding machine as claimed in claim 21 wherein the cooling station cooling means includes at least one water cooling water spray nozzle.

23. (new) A rotational moulding machine as claimed in claims 16 wherein each mould manipulator comprises a frame arrangement which is fixed to the upper surface of the carousel base and includes two spaced upwardly projecting supports, a rectangular frame element which carries stub axles which are attached centrally to and project outwardly from two opposite sides of the frame element with each stub axle being journaled for rotation in one of the frame supports for rotation of the frame element about an axis A, means for supporting at least one mould in the frame element including outwardly projecting shaft portions which are journaled for rotation in the remaining opposite sides of the frame element for rotation of the mould support about a second axis B, which is normal to the axis A, a first bevelled gear ring which is fixed to one of the frame element supports to be concentric with the frame element axis A, a second bevelled gear ring which is meshed with the first, and means releasably locking the second gear ring to a mould support shaft portion so that the gear rings may be uncoupled from and re-engaged with each other.

24. (new) A rotational moulding machine as claimed in claim 23 wherein the frame arrangement of each of the mould manipulators is mounted on a sheet metal base member which is fixed to the upper surface of the carousel base and includes on its upper surface a

suitable heat insulating material and a circular upwardly open peripheral channel in which the bottom of at least the sidewall of the heating station housing is sealingly located when the housing has been lowered onto the carousel base over a mould manipulator.

25. (new) A rotational moulding machine as claimed in claim 23 wherein the diameter of the second gear ring is smaller than the first and the teeth on the two gears are uneven in number so that they are not integer-multiples of one another.

26. (new) A rotational moulding machine as claimed in claim 23 wherein a drive wheel is fixed to one of the frame element stub axles on the outside of the frame element of each of the mould manipulators for rotating the frame element about its axis A.

27. (new) A rotational moulding machine as claimed in claim 16 wherein the carousel base carries three mould manipulators and the heating station housing and the cooling station enclosure are coupled together by a frame structure to which the raising and lowering means is connected.

28. (new) A rotational moulding machine as claimed in claim 16 wherein the carousel base carries at least five mould manipulators and the machine includes a pair of heating station housings, a pair of cooling station enclosures and at least one mould loading and stripping station with each pair of housings and enclosures being positioned over the carousel base to enclose adjacent mould manipulators on the carousel base when lowered onto the base with the housing and enclosure pairs each being coupled together by a frame structure with the raising

and lowering means being adapted to simultaneously raise and lower both frame structures from and onto the carousel base.

29. (new) A rotational moulding machine as claimed in claim 26 wherein the frame arrangements of the mould manipulators are so fixed to the carousel base that their frame element axes A intersect each other on the axis of rotation of the carousel base with the mould manipulator frame element stub axles which carry the drive wheels being radially innermost on the axes A of the frame elements.

30. (new) A rotational moulding machine as claimed in claim 29 wherein the or each heating station housing and cooling station enclosure carries a vertical slot in its side wall which is open to the underside of the wall for the passage in it of a mould manipulator drive wheel stub axle so that the drive wheel is situated on the outside of the or each heating station housing and cooling station enclosure when the or each housing and enclosure is lowered onto the carousel base.

31. (new) A rotational moulding machine as claimed in claim 30 wherein each frame structure which couples a pair of mould manipulator enclosures carries two mould manipulator drive arrangements which are so located in the frame structure that each will engage a drive wheel of a mould manipulator to drive the manipulator only when the enclosure is lowered onto the carousel base over the manipulator and to disengage from the drive wheel when the frame structure which carries them is raised from the carousel base.

32. (new) A rotational moulding machine as claimed in claim 28 wherein the raising and lowering means for the or each frame structure is a fixed overhead crane beam which is located over the centres of the mould manipulator enclosures which are carried by the frame structure and ropes which depend from the beam and are attached to the frame structure for raising it from and lowering it onto the carousel base.

33. (new) A rotational moulding machine as claimed in claims 17 wherein each mould manipulator comprises a frame arrangement which is fixed to the upper surface of the carousel base and includes two spaced upwardly projecting supports, a rectangular frame element which carries stub axles which are attached centrally to and project outwardly from two opposite sides of the frame element with each stub axle being journaled for rotation in one of the frame supports for rotation of the frame element about an axis A, means for supporting at least one mould in the frame element including outwardly projecting shaft portions which are journaled for rotation in the remaining opposite sides of the frame element for rotation of the mould support about a second axis B, which is normal to the axis A, a first bevelled gear ring which is fixed to one of the frame element supports to be concentric with the frame element axis A, a second bevelled gear ring which is meshed with the first, and means releasably locking the second gear ring to a mould support shaft portion so that the gear rings may be uncoupled from and re-engaged with each other.

34. (new) A rotational moulding machine as claimed in claims 18 wherein each mould manipulator comprises a frame arrangement which is fixed to the upper surface of the carousel base and includes two spaced upwardly

projecting supports, a rectangular frame element which carries stub axles which are attached centrally to and project outwardly from two opposite sides of the frame element with each stub axle being journaled for rotation in one of the frame supports for rotation of the frame element about an axis A, means for supporting at least one mould in the frame element including outwardly projecting shaft portions which are journaled for rotation in the remaining opposite sides of the frame element for rotation of the mould support about a second axis B, which is normal to the axis A, a first bevelled gear ring which is fixed to one of the frame element supports to be concentric with the frame element axis A, a second bevelled gear ring which is meshed with the first, and means releasably locking the second gear ring to a mould support shaft portion so that the gear rings may be uncoupled from and re-engaged with each other.

35. (new) A rotational moulding machine as claimed in claims 19 wherein each mould manipulator comprises a frame arrangement which is fixed to the upper surface of the carousel base and includes two spaced upwardly projecting supports, a rectangular frame element which carries stub axles which are attached centrally to and project outwardly from two opposite sides of the frame element with each stub axle being journaled for rotation in one of the frame supports for rotation of the frame element about an axis A, means for supporting at least one mould in the frame element including outwardly projecting shaft portions which are journaled for rotation in the remaining opposite sides of the frame element for rotation of the mould support about a second axis B, which is normal to the axis A, a first bevelled gear ring which is fixed to one of the frame element

supports to be concentric with the frame element axis A, a second bevelled gear ring which is meshed with the first, and means releasably locking the second gear ring to a mould support shaft portion so that the gear rings may be uncoupled from and re-engaged with each other.

36. (new) A rotational moulding machine as claimed in claims 20 wherein each mould manipulator comprises a frame arrangement which is fixed to the upper surface of the carousel base and includes two spaced upwardly projecting supports, a rectangular frame element which carries stub axles which are attached centrally to and project outwardly from two opposite sides of the frame element with each stub axle being journaled for rotation in one of the frame supports for rotation of the frame element about an axis A, means for supporting at least one mould in the frame element including outwardly projecting shaft portions which are journaled for rotation in the remaining opposite sides of the frame element for rotation of the mould support about a second axis B, which is normal to the axis A, a first bevelled gear ring which is fixed to one of the frame element supports to be concentric with the frame element axis A, a second bevelled gear ring which is meshed with the first, and means releasably locking the second gear ring to a mould support shaft portion so that the gear rings may be uncoupled from and re-engaged with each other.

37. (new) A rotational moulding machine as claimed in claims 21 wherein each mould manipulator comprises a frame arrangement which is fixed to the upper surface of the carousel base and includes two spaced upwardly projecting supports, a rectangular frame element which carries stub axles which are attached centrally to and project outwardly from two opposite sides of the frame

element with each stub axle being journaled for rotation in one of the frame supports for rotation of the frame element about an axis A, means for supporting at least one mould in the frame element including outwardly projecting shaft portions which are journaled for rotation in the remaining opposite sides of the frame element for rotation of the mould support about a second axis B, which is normal to the axis A, a first bevelled gear ring which is fixed to one of the frame element supports to be concentric with the frame element axis A, a second bevelled gear ring which is meshed with the first, and means releasably locking the second gear ring to a mould support shaft portion so that the gear rings may be uncoupled from and re-engaged with each other.

38. (new) A rotational moulding machine as claimed in claims 22 wherein each mould manipulator comprises a frame arrangement which is fixed to the upper surface of the carousel base and includes two spaced upwardly projecting supports, a rectangular frame element which carries stub axles which are attached centrally to and project outwardly from two opposite sides of the frame element with each stub axle being journaled for rotation in one of the frame supports for rotation of the frame element about an axis A, means for supporting at least one mould in the frame element including outwardly projecting shaft portions which are journaled for rotation in the remaining opposite sides of the frame element for rotation of the mould support about a second axis B, which is normal to the axis A, a first bevelled gear ring which is fixed to one of the frame element supports to be concentric with the frame element axis A, a second bevelled gear ring which is meshed with the first, and means releasably locking the second gear ring

to a mould support shaft portion so that the gear rings may be uncoupled from and re-engaged with each other.